

REMARKS

This amendment responds to the Office Action mailed April 4, 2003. After entry of this amendment claims 1-45 are pending in this application.

Claims 1, 3-4, 7 and 28 are amended in this application to more particularly point out and distinctly claim the subject matter which Applicants regard as their invention. Support for the amended claims and new claim may be found, for example, in the following portions of the specification:

| Claim | Support in the specification |
|--------------|-------------------------------------|
| 1 | Original claim 1. |
| 3 | Original claim 3; page 3, line 11. |
| 4 | Original claim 4; page 3, line 11. |
| 7 | Original claim 7. |
| 28 | Original claim 28. |
| 45 | Page 3, lines 7-9. |

I. CLAIMS 3-12 AND 24 ARE DEFINITE

Claims 3-12 stand rejected for indefiniteness under U.S.C. § 112, paragraph 2 for the reasons provided in the Office Action, p. 2, ¶ 2.

The Office Action suggested replacing “or” in claim 1 with “and/or” so “that the embodiment of claim 2 is also encompassed by the generic claim.” *Id.* Claim 1 has been amended to recite “wherein the masking layer and/or pressure sensitive adhesive layer is radiation cured.” Therefore, Applicants submit that claims 3-12 are definite.

The Office Action suggests that the phrase “release tape” should be replaced with “release liner” in claims 3 and 4. Claims 3 and 4 have been amended to recite a “release liner.” Therefore, Applicants submit that claims 3 and 4 are definite.

The Office Action questioned “whether or not ‘a polyamide’ is a ‘tackifier’” as recited in claim 24 of the application. Claim 24 has been amended to remove “polyamide” from the Markush group. Therefore, claim 24 is definite.

The amendments to claims 1, 3, 4 and 24 have rendered the Office Action’s § 112, paragraph 2 rejections moot. Accordingly, withdrawal of the rejections under U.S.C. § 112, paragraph 2 is respectfully requested.

II. CLAIMS 1-43 ARE NOT OBVIOUS OVER U.S. PATENT NO. 6,352,770 B1 NIENABER ET AL. OR U.S. PATENT NO. 6,162,492 TO NARAYANAN ET AL.

The Office Action alleges that claims 1-43 are unpatentable over U.S. Patent No. 6,352,770 B1 to Nienaber et al. (“Nienaber”) or U.S. Patent No. 6,162,492 to Narayanan (“Narayanan”) under 35 U.S.C. § 103(a) for the reasons provided in the Office Action, p. 2, ¶ 4. Applicants respectfully disagree.

The applicable law governing obviousness states that a claim may be found invalid under § 103 “if the differences between the subject matter [of the claim] sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. §103 (a). To make out a prima facie case of obviousness the references cited to reject the claims must provide all of the elements of the invention as claimed and a suggestion must be found within the references themselves to combine the disclosures of the various cited art references to make the claimed invention. *In re Geiger*, 815 F.2d 686, 688 (Fed. Cir. 1987). “Obviousness cannot be established by

combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination." *Carella v. Starlight Archery*, 804 F.2d 135, 140 (Fed. Cir. 1986); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577 (Fed. Cir. 1984). The relevant inquiry is whether the prior art suggests the claimed invention, and whether that prior art would have indicated a reasonable expectation of success to one of ordinary skill in the art. *In re O'Farrell*, 853 F.2d 894, 902-03 (Fed. Cir. 1988). Both the suggestion and expectation of success must be found in the prior art, not in Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). "When obviousness is based on a particular prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of the reference." *B.F. Goodrich Company v. Aircraft Braking Systems Corporation*, 72 F.3d 1577, 1582 (Fed. Cir. 1996).

The Office Action concedes that neither Nienaber nor Narayanan discloses "the product-by-process limitation that the masking layer or the pressure sensitive adhesive layer (or, it is presumed, both) are radiation cured." Office Action, p. 3, ¶ 4. The Office Action alleges, however, that "such a process difference has not been shown to result in a patentably distinct article." *Id.*, p. 4, ¶ 4. Applicants respectfully disagree for the reasons discussed below.

A. Nienaber

Nienaber is directed to "a correction tape comprising a support member, a correction medium layer, and a transfer layer" (col. 2, lines 28-29). The correction medium layer includes "a binding polymer for retaining the opacifying pigment and bleed inhibitor in the correction medium layer to facilitate deposition of the layer on the support member and transfer of the layer onto printed or ink matter on a substrate" (col. 2, lines 34-38). Nienaber teaches that "[b]inding polymers include any polymer capable of holding the opacifying pigment within the polymer matrix of the correction medium layer" (col. 5, lines 27-29). However, Nienaber does not disclose, teach or suggest that his binding polymer can be radiation cured. Nor does Nienaber disclose, teach or suggest that his correction medium layer can be radiation cured. Similarly, Nienaber discloses "a pressure sensitive adhesive for adhering the correction medium layer to the printed or ink matter and substrate" (Claim 1). However, Nienaber provides no disclosure or teaching that his pressure sensitive adhesive layer can be radiation cured. Therefore, Applicants respectfully submit that the present invention is not obvious over Nienaber, since that reference does not provide "a showing of a

suggestion or motivation to modify the teachings of the reference." *B.F. Goodrich Company*, 72 F.3d at 1582.

Applicants further note the specification of the present application discloses that the radiation-cured layers of the present invention "exhibit improved film toughness, improved resistance to ink 'bleed through', infusibility, and essentially no solubility in organic solvents" (page 3, lines 7-9). In contrast, Nienaber exemplifies a multi-layer correction tape wherein the layers are applied with the aid of solvent and allowed to dry (*see, e.g.*, Examples 1-3). There is no disclosure or teaching that the dried layers of Nienaber's correction tape will exhibit properties like those of a radiation-cured layer of the present invention. Therefore, Applicants respectfully submit that the radiation-curing process of the present invention results in an article that is patentably-distinct from the multi-layer correction tape of Nienaber.

Thus, for the reasons provided above, Applicants request that the rejection of claims 1-43 under 35 U.S.C. § 103 (a) over Nienaber be withdrawn.

B. Narayanan

Narayanan is directed to a "a multi-layer correction material based on a siliconized carrier foil, which can be produced without the use of organic solvents or suspension agents as well as a process for its production and its use" (col. 1, lines 9-12). An objective of Narayanan is a multi-layer correction material "which can be produced without the use of organic solvents, i.e., which can be prepared in aqueous solution or suspension alone" (col. 1, lines 54-56).

Applicants respectfully submit that Narayanan does not disclose, teach or suggest that his "removable layer" or "adhesive coating" can be radiation cured. Therefore, Applicants respectfully submit that the present invention is not obvious over Narayanan, since that reference does not provide "a showing of a suggestion or motivation to modify the teachings of the reference." *B.F. Goodrich Company*, 72 F.3d at 1582.

Applicant's further note the specification of the present application discloses that the radiation-cured layers of the present invention "exhibit improved film toughness, improved resistance to ink 'bleed through', infusibility, and essentially no solubility in organic solvents" (page 3, lines 7-9). In contrast, Narayanan exemplifies a multi-layer correction tape wherein at least the pigment-containing layer is applied as an aqueous suspension and allowed to dry (col. 2, lines 36-67). There is no disclosure or teaching that the dried layers of Narayanan's correction tape will exhibit properties like those of a radiation-cured layer of the

present invention. Therefore, Applicants respectfully submit that the radiation-curing process of the present invention results in an article that is patentably-distinct from the multi-layer correction tape of Narayanan.

Thus, for the reasons provided above, Applicants request that the rejection of claims 1-43 under 35 U.S.C. § 103 (a) over Narayanan be withdrawn.

III CLAIMS 1-44 ARE NOT OBVIOUS OVER NIENABER, OR NARAYANAN IN VIEW OF U.S. PATENT NO. 4,434,207 TO FRANEY OR U.S. PATENT NO. 4,388,137 TO McCARTY ET AL.

The Office Action alleges that claims 1-44 are unpatentable under 35 U.S.C. § 103(a) as obvious over Nienaber or Narayanan in view of U.S. Patent No. 4,434,207 to Franey (“Franey”) or U.S. Patent No. 4,388,137 to McCarty et. al. (“McCarty”) for the reasons provided in the Office Action, p. 4-5, ¶ 4.

The Office Action alleges that “one of ordinary skill, motivated by an expectation of an improved, environmentally friendly, and industrially desirable process would have more than ample motivation to incorporate the radiation curing techniques of the secondary references into each of the primary reference articles and thereby either form, or clearly render obvious the claimed genus of articles” *Id.*, p. 5. Applicants respectfully disagree for the reasons discussed below.

A. Franey

Franey is directed to “correction mediums for lift-off correction by impact” (col. 1, lines 8-9). (Emphasis added.) Franey discloses that the “[p]rinting suitable for lift-off correction is removed bodily after impact of the correction medium against printed characters. A bond with the correction medium forms. The correction medium is removed, and the print stays with the correction medium” (col. 1, lines 9-14). (Emphasis added.) Applicants further note that Franey does not disclose a “masking layer,” presumably since such layer is unnecessary to a device intended to remove a character from a substrate.

B. McCarty

McCarty is directed to a process for preparing a radiation-cured coating. McCarty teaches that “coatings may be specifically designed to provide the desired degree of differential adhesive force or ‘selective adhesion’ between two dissimilar substrate surfaces and still provide acceptable adhesion to the substrate of interest” (col. 1, lines 56-60).

McCarty teaches that “mixtures of molecules containing one or more ethylenically unsaturated groups that are reactive to polymerization by free radicals may be used” (col. 4, lines 18-22). McCarty discloses that “[s]uitable mixtures of ethylenically unsaturated molecules with or without the addition of mercaptans may be cured either by electron beams or ultraviolet light” (col. 4, lines 25-27). The process of McCarty comprises “applying a radiation-curable composition to a carrying web” and “bringing a thin porous substrate to which said coating composition will adhere into contact with said coating composition on said carrying web to form a sandwich” (Claim 1). The resultant sandwich is subject to “a radiation curing process wherein said coating composition is polymerized and set on the surface on said porous substrate” (Claim 1). The carrying web is then stripped away “from the layer comprising said cured coating composition” (Claim 1). However, McCarty does not teach that the cured composition can be transferred from the substrate of the sandwich to another substrate. Rather, McCarty teaches that the “cured” coating composition remains fixed on the substrate. For example, McCarty states that “it may be beneficial to incorporate adhesion promoting groups on the surface of the substrate on which the cured coating is to remain after stripping away of the carrying web” (col. 2, lines 29-32). McCarty also claims that the “carrying web has a design to its surface to which said coating composition is applied, which design is transferred to the cured surface of said cured and coated substrate” (Claim 14). Thus, McCarty teaches that once the sandwich is cured, the composition is intended to remain fixed to the substrate.

**1. CLAIMS 1-44 ARE NOT OBVIOUS OVER
NIENABER IN VIEW OF FRANNEY**

Applicants submit that Franey teaches a “lift-off” correction tape. In contrast, Nienaber teaches the use of controlled release support member and a “binding polymer” “to facilitate ... transfer of the layer onto printed or ink matter on a substrate” (col. 2, lines 34-38). (Emphasis added.) Therefore, Applicants submit that one skilled in the art would find no suggestion or motivation to combine the lift-off radiation cured correction medium of Franey with the correction tape of Nienaber.

Applicants respectfully submit that claims 1-44 are not obvious over Nienaber in view of Franey for the reasons provided above. Therefore, Applicants request that the rejection of claims 1-44 under 35 U.S.C. § 103 (a) over the cited references be withdrawn.

**2. CLAIMS 1-44 ARE NOT OBVIOUS OVER
NARAYANAN IN VIEW OF FRANEY**

Narayanan teaches “a multi-layer correction and/or marking material, comprising applying a removable film onto a carrier” (Claim 1), and further discloses that the “film is applied to a substrate which can be released therefrom” (Abstract). (Emphasis added.) Therefore, Applicants submit that one skilled in the art would find no suggestion or motivation to combine the lift-off radiation cured correction medium of Franey with the multi-layer correction tape of Narayanan.

Applicants respectfully submit that claims 1-44 are not obvious over Narayanan in view of Franey for the reasons provided above. Therefore, Applicants request that the rejection of claims 1-44 under 35 U.S.C. § 103 (a) over the cited references be withdrawn.

**3. CLAIMS 1-44 ARE NOT OBVIOUS OVER
NIENABER IN VIEW OF McCARTY**

Nienaber discloses that an “advantage of the two-layered tape is that the present invention can be used on conventional machinery, thus not requiring additional equipment for the manufacture of the two-layered tape” (col. 3, lines 2-5). (Emphasis added.) In contrast, the process of McCarty requires (1) a curing means to affect radiation curing of the applied composition, and (2) a roll laminator capable of forming a “sandwich” comprising a substrate and a carrying web.

In addition, Applicants note that Nienaber contemplates the use of his two-layered tape in a hand dispenser. For example, Nienaber states that “[s]uitable support members can be coiled into rolls and used in correction tape dispensers” (col. 3, lines 28-29). In contrast, McCarty does not disclose that his coating composition can be “coiled into rolls” as required for use in a dispenser as taught by Nienaber. Likewise, one skilled in the art would not combine a process requiring radiation curing to affix a coating to a substrate as taught by McCarty with a two-layered tape that can be coiled in a dispenser as taught by Nienaber, and thereby arrive at Applicant’s invention.

Applicants respectfully submit that claims 1-44 are not obvious over Nienaber view of McCarty for the reasons provided above. Therefore, Applicants request that the rejection of claims 1-44 under 35 U.S.C. § 103 (a) over the cited references be withdrawn.

**4. CLAIMS 1-44 ARE NOT OBVIOUS OVER
NARAYANAN IN VIEW OF McCARTY**

As noted above, Narayanan does not disclose, teach or suggest that his “removable layer” or “adhesive coating” can be radiation cured. For example, the “film-forming binding agents” disclosed by Narayanan include terpolymer dispersions based on vinyl acetate and acrylic acid esters and copolymers based on acrylic acid esters with the use of acrylonitrile (col. 2, lines 11-17). The “friable binding agents” include acrylic polymers and copolymers containing carboxylic groups based on acrylic acid esters (col. 2, lines 19-26). Narayanan, however, does not teach or disclose that any of his “binding agents” can undergo further polymerization. In contrast, McCarty teaches that “[c]rosslink densities ranging from about 0.02 to about 1.0 have been found to be useful in this regard, but a range of from about 0.03 to 0.7 is preferred and, in particular, a range of between 0.04 and 0.5 is found to be the most useful” (col. 2, lines 12-16). McCarty further states that “mixtures of molecules containing one or more ethylenically unsaturated groups that are reactive to polymerization by free radicals may be used” (col. 4, lines 19-22). Thus, Applicants submit that Narayanan provides no disclosure or suggestion that his “removable layer” or “adhesive coating” contains a component with the requisite “cross-link densities” or “ethylenically unsaturated groups” as taught by McCarty. Therefore, Applicants submit that one skilled in the art would find no suggestion or expectation of success to use the radiation curing process of McCarty in combination with the correction tape of Narayanan and thereby arrive at Applicants’ invention.

Applicants respectfully submit that claims 1-44 are not obvious over Narayanan in view of McCarty for the reasons provided above. Therefore, Applicants request that the rejection of claims 1-44 under 35 U.S.C. § 103 (a) over the cited references be withdrawn.

CONCLUSION

Applicants submit that the entire application is now in condition for allowance, early notice of which would be appreciated. Should the Examiner not agree with Applicants' position, then a personal or telephonic interview is respectfully requested to discuss any remaining issues and expedite the eventual allowance of the application.

Please charge all required fees to Pennie & Edmonds LLP Deposit Account No. 16-1150.

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